

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF MISSISSIPPI
WESTERN DIVISION**

FRED BECK; ET AL.,

PLAINTIFFS,

VS.

CIVIL ACTION NO. 3:03CV60-P-D

**KOPPERS, INC., f/k/a KOPPERS INDUSTRIES, INC.;
ET AL.,**

DEFENDANTS.

CONSOLIDATED WITH

HOPE ELLIS, ET AL.,

PLAINTIFFS,

VS.

CIVIL ACTION NO. 3:04CV160-P-D

**KOPPERS, INC., f/k/a KOPPERS INDUSTRIES, INC.;
ET AL.,**

DEFENDANTS.

ORDER

This matter comes before the court upon Plaintiffs’ Daubert Motion/ Motion in Limine to Exclude, and/or in the Alternative, Limit the Testimony of Defendant’s Expert, Raymond A. Ferrara, Ph.D. [447-1]. Upon due consideration of the motion and the responses filed thereto, the court finds as follows, to-wit:

Federal Rule of Evidence 702 provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

“In Daubert the Court charged trial judges with the responsibility of acting as gatekeepers to exclude unreliable expert testimony.” Advisory Committee’s Note to the 2000 Amendment of FRE 702

(citing *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993)). A proponent of expert testimony burden of establishing that the pertinent admissibility requirements are met by a preponderance of the evidence. *Id.*

The Court in *Daubert* set forth a non-exclusive checklist for trial courts to use in determining the reliability of scientific expert testimony, which include:

- (1) whether the expert's technique or theory can be or has been tested---that is, whether the expert's theory can be challenged in some objective sense, or whether it is instead simply a subjective, conclusory approach that cannot reasonably be assessed for reliability;
- (2) whether the technique or theory has been subject to peer review and publication;
- (3) the known or potential rate of error of the technique or theory when applied;
- (4) the existence and maintenance of standards and controls; and
- (5) whether the technique or theory has been generally accepted in the scientific community.

Id.

According to the Advisory Committee Note to the 2000 Amendment of FRE 702, “courts both before and after *Daubert* have found other factors relevant in determining whether expert testimony is sufficiently reliable to be considered by the trier of fact.” These factors include:

- (1) Whether experts are "proposing to testify about matters growing naturally and directly out of research they have conducted independent of the litigation, or whether they have developed their opinions expressly for purposes of testifying.";
- (2) Whether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion;
- (3) Whether the expert has adequately accounted for obvious alternative explanations;
- (4) Whether the expert "is being as careful as he would be in his regular professional

work outside his paid litigation consulting."; and

(5) Whether the field of expertise claimed by the expert is known to reach reliable results for the type of opinion the expert would give.

Id. (citations omitted).

The ultimate issue in this case is whether the subject wood-treatment facility – located just to the east of the Tie Plant neighborhood near Grenada, Mississippi – caused pollution that caused Sherrie Barnes, who lived in the Tie Plant neighborhood, to die from breast cancer. Kenesha Barnes, on behalf of her mother Sherrie Barnes, alleges in her Fourth Amended Complaint that the defendants are liable for negligence, gross negligence, negligence per se, intentional tort, conspiracy, strict liability, trespass, nuisance, and failure to warn. More specifically, Barnes maintains that the defendants caused various contaminants (*e.g.*, pentachlorophenol, creosote, and the known carcinogen benzene) used in treating railroad ties and telephone poles to pollute six specific properties regularly visited by Sherrie Barnes through contaminated groundwater, surface water, and airborne vapors. These properties include her home at 125 Carver Circle (where she lived from 1962 until her death in 1998); 213 Carver Circle (1976-1998); 109 Simmons Rd (unidentified period); Tie Plant School (1868-1974); Grenada Junior High School (1974-1976); and Grenada High School (1976-1979).

Defendants Koppers, Inc. and Beazer East, Inc. have proffered Raymond A. Ferrara, Ph.D. as an expert in hydrology – *i.e.*, the study of water systems. Dr. Ferrara earned his Ph.D. in environmental engineering from the Massachusetts Institute of Technology in 1978. He has had twenty-five years of experience in environmental engineering and science and has been a scholar, educator, and consultant in aspects of environmental science concentrating on contaminant fate and

transport, water quality modeling and monitoring, and water and wastewater treatment and conveyance facilities. He has been retained in at least fifteen trials as an expert involving water contamination. He has written at least ten refereed journal articles regarding water quality/contamination.

According to his report, Dr. Ferrara was “asked to opine regarding the potential for chemicals used at the Koppers Site to have been transported to off-site locations via the local hydrologic system.” He based his opinions on: (1) reports on site specific investigations over the last 20 years; (2) documents, records, and data regarding operations at the site; (3) information from regulatory agencies describing the hydrologic system; (4) tax parcel records; (5) several visits to the Site to personally observe and study the subject hydrologic system; and (6) twenty-five years of experience as a teacher, scholar, and consultant in the field of water resource systems.

Dr. Ferrara’s primary opinions as stated in his report follow:

(1) Because “[d]rainage from the Site is conveyed to the [Batupan] Bogue via three tributaries – the Northern Stream, the Central Ditch, and Jack Creek ... [d]rainage from the Site to the Batupan Bogue is diluted by a factor of approximately 1000 to 1. Consequently, any chemicals that may have left the Koppers Site via surface water tributaries to the Bogue would be highly diluted in the Bogue.”

(2) “[T]he drainage that traveled through this system would have had no contact with properties south or east of 43 Carver Circle and would not impact the Tie Plant School building.”

(3) Drainage from a vegetated buffer area not used for wood treating or storage “may have traveled onto properties including 125 and 183 Carver Circle, but likely only during larger storms. The characteristics of that drainage should have been no different than that expected from any other

vegetated buffer in the general area, and specifically should not have contained any of the chemicals used in wood treating.”

(4) “Properties south of 203 Carver Circle, including 213 and 275 Carver Circle, would not have been impacted by drainage from the Koppers Site. Similarly, properties in the central, southerly and easterly areas of Carver Circle would not have received drainage from the Koppers Site.”

(5) “Six locations of potential exposure to drainage from the Koppers Site have been examined for Sherrie Barnes [referenced above] ... The only one of these locations that may possibly have experienced drainage from the Koppers Site is 125 Carver Circle, and the exposure would have been only occasionally to drainage from the small vegetated buffer mentioned above. The characterization of that drainage would be no different than that in the general area.”

(6) 109 Simmons road, Grenada Junior High School, and Grenada High School, three out of the six subject properties, “are distinctly distant from the site hydrologically.”

(7) 213 Carver Circle “was not impacted by drainage from the Site.”

(8) Tie Plant School “would not have been impacted by drainage from the Koppers Site.”

(9) “The Carver Circle area has been served by municipal water sources that were not impacted by operations of the Koppers Site. There is no evidence of groundwater use in Carver Circle and no receptors of potentially contaminated groundwater.”

(10) “Groundwater migration of chemicals used at the Site is of limited extent and does not extend into the Carver Circle area.”

(11) “Various inspections, investigations and data demonstrate that they spray field was not a source of groundwater contamination.”

The plaintiff has filed the instant motion in limine to exclude the opinions of Dr. Ferrara, the

primary basis of which is her insistence that Dr. Ferrara's opinions fail to meet Rule 702 muster because they are not based on sufficient facts or data. Barnes's primary argument is that Dr. Ferrara's dilution analysis (*e.g.*, any water migrating from the Koppers Site would have been diluted 1000 to 1 by the time it reached the Batupan Bogue on the west of the Tie Plant neighborhood) is flawed because it did not take into account the actual concentration of chemicals. That is, even if a chemical were diluted 1000 to 1 by water, the higher the amount of chemical would render the amount after dilution higher.

Having considered Dr. Ferrara's report and deposition testimony, the parties' arguments regarding the admissibility of those opinions, and the *Daubert* factors, the court concludes that the defendants have shown by a preponderance of the evidence that Dr. Ferrara's testimony passes FRE 702 muster. Dr. Ferrara is clearly qualified as an expert in the movement of groundwater by knowledge, skill, experience, training, or education. His opinions are sufficiently reliable and helpful to the jury in determining whether groundwater brought dangerous levels of chemicals from the wood-treatment facility to Sherrie Barnes. The opinions appear based upon sufficient data and reliable methods applied in a reasonable manner. Dr. Ferrara's opinions are not merely subjected and can be challenged in an objective sense. There is no evidence that Dr. Ferrara's methodology is not generally accepted in the scientific community.

Finally, even if Dr. Ferrara did not adequately account for actual chemical concentration levels in his dilution analysis, though it appears that he did, his general opinions regarding movement of the groundwater in and around the Tie Plant neighborhood are still reliable and helpful. In the *Daubert* analysis, the court is not called upon to determine whether an expert's testimony is correct but rather whether it is reliable enough to not be mere subjective opinion or junk science. It is up to

the plaintiff to point out any perceived weaknesses of Dr. Ferrara's testimony at trial during cross examination.

IT IS THEREFORE ORDERED AND ADJUDGED that Plaintiffs' Daubert Motion/ Motion in Limine to Exclude, and/or in the Alternative, Limit the Testimony of Defendant's Expert, Raymond A. Ferrara, Ph.D. [447-1] is **DENIED**.

SO ORDERED this the 2nd of February, A.D., 2006.

/s/ W. Allen Pepper, Jr.
W. ALLEN PEPPER, JR.
UNITED STATES DISTRICT JUDGE